

CLAIMS

1.

An arthroplasty implant for providing a joint between first and second members of the body, the implant comprising:

- a first component defining a concave surface and having first connection means for connecting it to the first body member;
- a second component defining a convex surface and having second connection means for connecting it to the second body member;
- an intermediate component for location between the first and second components and defining a convex surface which is slidable on the concave surface of the first component to allow articulation between the first component and the intermediate component and a concave surface slidable on the convex surface of the second component to allow articulation between the second component and the intermediate component, and
- means for preventing the intermediate component from separating laterally from at least one of the first and second components.

2.

An implant according to claim 1 wherein the concave surface of the first component and the convex surface of the intermediate component are complementally, spherically curved.

3.

An implant according to either one of the preceding claims wherein the convex surface of the second component and the concave surface of the intermediate component are defined by radii of curvature which differ in mutually orthogonal directions.

4.

An implant according to any one of the preceding claims wherein the length of the convex surface of the second component in a direction defined by a relatively large radius of curvature is greater than the length of that surface in a direction defined by a relatively small radius of curvature.

5.

An implant according to any one of the preceding claims wherein the first and second components are capable of translation and articulation relative to the intermediate component.

6.

An implant according to any one of the preceding claims wherein the first and second components are made of grade 5 titanium and their respective concave and convex surfaces are provided with a titanium nitride finish.

7.

An implant according to any one of the preceding claims wherein the intermediate component is made of a low friction plastics material.

8.

An implant according to claim 7 wherein the plastics material is ultra high molecular weight polyethylene.

9.

An implant according to any one of the preceding claims wherein the first and second connection means comprise projecting posts locatable in holes in the respective members.

10.

An implant according to any one of the preceding claims and comprising a central projection on the concave surface of the first component and a central opening in the convex surface of the intermediate component, the projection in use locating loosely in the opening to prevent lateral separation of the intermediate and first components.

11.

An implant according to claim 10 wherein the concave surface of first component and the convex surface of the intermediate component are bounded by peripheral edges which contact one another when relative movement between the first component and the intermediate component reaches a predetermined maximum limit.

12.

An implant according to any one of claims 1 to 9 wherein one of the first component and the intermediate component includes a laterally outwardly facing projection and the other of the first component and the intermediate component includes a laterally inwardly facing recess, the projection in use interacting with the recess to prevent lateral separation of the intermediate and first components.

13.

An implant according to claim 12 wherein the first component includes an annular wall bounding the concave surface of that component, the peripheral wall being formed with an annular undercut defining the laterally inwardly facing recess, and the intermediate component includes an annular rib defining the laterally outwardly facing projection, interaction in use between the rib and the undercut preventing lateral separation of the intermediate and first components.

14.

An implant according to any one of the preceding claims wherein the first component is a phalangeal component of a metatarsophalangeal joint implant and is connectable to a phalanx, and the second component is a tarsal component of the joint and is connectable to a tarsus.